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Effect of Plyometric Training on Skill Performance of Football Players

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ABSTRACT

The aim of the research is to find out the effect of Plyometric Training on skill performance of football players. For the purpose of the study, 20 Male Football Players of under-14 years Football Team from RBK School, Beverly Park, Mira Road East, Maharashtra, were randomly selected as subjects for the study, The Single Group Experimental research design was framed for this study. The selected 20 Male Football Players underwent 6 weeks of skill related Plyometric training. Pre-test and Post-test were conducted on the selected skill performance such as Dribbling, Kicking, and Accuracy and Juggling ability of the football players. The mean, standard deviation and 't' test were calculated, and the level of significance was set at 0.05. The results showed the significant mean difference in dribbling performance, kicking accuracy and juggling performance, of the subjects after 6 weeks of plyometric training. In conclusion, it appeared that plyometric training program resulted in improvement of skill performance of the football players.

INTRODUCTION:

A prominent feature of football players is the capability to perform various skills. The game of football requires tremendous physical fitness as the duration of the game is 90 minutes, in which basic movements such as skill include kicking, running, jumping, throwing, dodging etc. are involved. Speed, Cardio vascular endurance, and agility are the most important factors or qualities which one requires to become a complete football player.[1] Speed with the ball is essential to overtake the opponent in receiving the possession of the ball and also, there should be co-ordination, which is very important, so that the player can have a good control on the ball.[2] Plyometric Training must be carried out to enhance the performance of the player based on these variables, i.e., co-ordination, speed, balance, agility and skill performance of football players.[3]

METHODOLOGY:

The methodology of the study consisted of one experimental group for testing the effect of plyometric training for the promotion of selected skill performance of football Players. The Single group experimental research design was framed for this study. The selected 20 Male Football Players underwent 6 weeks of skill related

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[2] Israel Teoldo da Costa, J. M. (2009). Tactical Principles of Soccer: concepts and application. Princípios Táticos do Jogo de Futebol: conceitos e aplicação, 657-658. Retrieved from http://www.nucleofutebol.ufv.br/english/wp-content/uploads/128-motriz-principles-ingles-div.pdf
[3] Zhang, Y.-C. W. (2016, 6 3). Effects of plyometric training on soccer players. Experimental and Therapeutic Medicine, 550-554. Retrieved 8 21, 2018, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4950532/

Plyometric training for 5 days in a week (Monday to Friday) in morning session for 60 minutes. Pre-test and Post-test were conducted on the selected skill performance such as Dribbling, Kicking accuracy and Juggling ability of football players by administering 30mtrs Run with ball test, Kicking Accuracy Test, Juggling Test of football players.

Selection of Subjects:

In this study 20 Male Football Players of under 14 years Football Team from RBK School, Beverly Park, Mira Road East and Maharashtra.

Selection of Variables:

The variables selected for this study were as follows: -

- Independent Variable: Plyometric Training was chosen for the present study as independent variables. Plyometric Training are given below: -
  - Agility Training
  - Kick and Balance Training
  - Football Gymnastics training
  - Football Coordination Training
  - Kick and Juggle Training
- Dependent Variables:
  - Dribbling
  - Kicking
  - Juggling
  - Total Skill Performance

Criterion Measure:

The SAI Football Skill Test was selected as a criterion measure for the study:

- 30mtr running with the ball was selected for dribbling performance and was recorded in seconds.
- Kicking Accuracy test was selected for kicking performance and was recorded in counts.
- Juggling test was selected for juggling performance and was recorded in counts.

Training Schedule:

The Schedule for training program to the subjects was executed for total of 6 weeks. 5 days a week from Monday to Friday for 1 hour a day. Warming up: 10 min, Training period: 40 min, Cool down: 10 min.

DATA ANALYSIS:

Mean and Standard deviation were calculated for Skill performance of football Players and the data was analysed by using ‘t’ test as suggested by MeGuigan for further understanding and interpretation of scores obtained.

Results: Comparison of mean gain of pre-test and post-test on Skill Performance of football players

Variables	Pre-Test		Post Test		MD	SE_M	't'	Significance
	Mean	SD	Mean	SD				
Dribbling	6.205	0.489	5.999	0.455	0.206	0.046	4.484	0.0002540
Kicking	6.650	1.089	8.000	1.076	-1.350	0.196	-6.890	0.0000014
Juggling	12.500	4.466	14.300	2.993	-1.800	0.531	-3.389	0.0030804
Total Skill Performance	4.200	1.609	5.500	1.987	-1.300	0.263	-4.951	0.0000887

In case of dribbling test, the mean performance of experimental group in Pre-test was 6.205 (SD = 0.489) and Post-test was 5.999 (SD = 0.455). The mean gain of experimental group was 0.206 (SEM = 0.046).

In case of kicking test, the mean performance of experimental group in Pre-test was 6.650 (SD = 1.089) and Post-test was 8.000 (SD = 1.076). The mean gain of experimental group was -1.350 (SEM = 0.196).

In case of juggling test, the mean performance of experimental group in Pre-test was 12.500 (SD = 4.466) and Post-test was 14.300 (SD = 2.993). The mean gain of experimental group was -1.800 (SEM = 0.531).

In case of the Total Skill performance, the mean performance of experimental group in Pre-test was 4.200 (SD = 1.609) and Post-test was 5.500 (SD = 1.987). The mean gain of experimental group was -1.300 (SEM = 0.263).

FINDINGS: The result of't' test of the experimental group showed significant improvement in dribbling test ($t = 4.484$, $p < 0.0002540$), significant improvement in kicking test ($t = -6.890$, $p < 0.0000014$), significant improvement in juggling test ($t = -3.389$, $p < 0.0030804$) and significant improvement in Total Skill performance ($t = -4.951$, $p < 0.0000887$) of football players.

CONCLUSION: The result of the study indicated that there was significant improvement in Dribbling skill of football players, Kicking skill of football players, Juggling skill of football players and total skill performance of football players due to 6 weeks of plyometric training.

From the results we recommend that plyometric training must be carried out to enhance the performance of the football players, also it may be helpful to the other players of different games for the improvement of their skills.

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